



CALIFORNIA  
ENERGY  
COMMISSION

# GRANT SOLICITATION

## Renewable-Based Energy Secure Communities (RESCOs)

### Research, Development and Demonstration

### PIER Renewables Program

APPLICATION PACKAGE

Date: December 8, 2008



Arnold Schwarzenegger, Governor

**CALIFORNIA**

# ENERGY COMMISSION

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## **SOLICITATION AND APPLICATION PACKAGE**

### **Public Interest Energy Research (PIER) Program Research, Development & Demonstration (RD&D)**

### **Renewable-Based Energy Secure Communities (RESCO)**

#### **RESCO Technical Integration and Collateral Category Projects**

1. **Release Date:** December 8, 2008
2. **Proposal Due Date:** January 30, 2009 at 4:00 p.m. PST
3. **Purpose**  
This is a competitive grant solicitation sponsored by the California Energy Commission's Public Interest Energy Research (PIER) Renewables Program to:
  - 1) Identify and co-fund three or more integrated renewable energy (RE) projects that enable effective use of multiple geographically convenient RE sources and address technical, economic, and environmental barriers to implementation of renewable energy secure communities (RESCO)<sup>1</sup> in California, and
  - 2) Identify and co-fund one project for each RESCO collateral category projects that complement the RESCO integration projects.

The integrated RE projects are targeted to be organized by leading California communities in collaboration with other private and public sector partners. Resulting integrated technical solutions will be replicable by sustainable communities in California,

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#### <sup>1</sup> **Definitions**

**Renewable Energy Secure Communities (RESCO):** Communities that secure their energy supply (electricity and fuel) through primary (up to 100%) reliance on indigenous renewable energy resources and are therefore less vulnerable to interruptions and emergencies affecting the supply of imported energy (natural gas, grid electricity, and transportation fuels). In addition, RESCO advances science and technology by developing and demonstrating mixed renewable energy (RE) technologies in an integrated, sustainable, and optimum manner coordinated as appropriate with advancements in energy efficiency, demand response, smart grid integration, energy storage, combined cooling, heating and power, and co-production of value-added products such as biofuels that will help make California's electricity and transportation fuels more diverse, safe, cleaner, and affordable.

The program is called RESCO. This solicitation is written to refer to Renewable Energy Secure Communities, as RESCOs.

**Development and Demonstration:** Stages of RE technology development that build upon past work such as preliminary research, feasibility studies and technology validation prototypes, taking advantage of synergies, and avoiding unnecessary duplication.

**Technical, Economic, and Environmental Barriers:** Implementation of RESCOs requires reliable, secure energy supply at a competitive cost that can be estimated and forecast with high confidence. Reliability of products and systems is typically achieved through design, development, piloting, pre-commercial demonstration, and later incremental improvement and/or innovation.

especially those aiming for zero net energy purchases, zero carbon, zero waste, sustainable transportation fuels, sustainable water, and sustainable local ecology.

#### **4. Availability of Solicitation Documents and Information**

This solicitation and all supporting documents and forms can be found at <http://www.energy.ca.gov/contracts/index.html> under "Current Solicitations." Interested parties may also register on the electronic mailing list on this webpage to receive notifications of any changes to this solicitation.

For those parties without internet access, copies of solicitation documents and information can be obtained by contacting:

Angela Layton  
Administrative Assistant  
Energy Generation Research Office  
California Energy Commission  
1516 Ninth Street, MS-43  
Sacramento, CA 95814  
Telephone: (916) 651-9312  
Email: [alayton@energy.state.ca.us](mailto:alayton@energy.state.ca.us)

In addition, you may request to be added to the mailing notification list to receive changes made to this solicitation.

#### **5. Background**

The PIER Program, administered by the California Energy Commission, funds selected public interest energy RD&D efforts that advance energy science and technology and help improve the quality of life in California by bringing environmentally safe, affordable and reliable energy services and products to the marketplace. The PIER has more than \$80 million in annual funding from California's electricity and natural gas ratepayers to conduct the most promising public interest energy research. It partners with RD&D organizations, including individuals, businesses, utilities, and public or private research institutions. PIER brings new energy services and products to the marketplace and creates state-wide environmental and economic benefits. PIER funding efforts are focused on the following RD&D program areas:

- Buildings End-Use Energy Efficiency (Buildings)
- Climate Change Program
- Energy Innovations Small Grant Program
- Energy-Related Environmental Research
- Energy Systems Integration
- Environmentally-Preferred Advanced Generation
- Industrial/Agricultural/Water End-Use Energy Efficiency
- Renewable Energy Technologies
- Transportation Research

Significant energy issues have been identified for each of the PIER program areas. The PIER program focus has been directed towards resolving these issues and meeting the overall PIER objectives of improving affordability, reliability, health and safety of California's energy systems, strengthening California's economy, and creating favorable environmental outcomes, and consumer choices relevant to electricity and natural gas supply and use in California. The list of key issues to be addressed by the PIER Renewables Program can be found in the published 2006 PIER Renewables Roadmap - and the updated PIER Renewables roadmap presented at a public workshop posted on June 3, 2008:

[www.energy.ca.gov/2007publications/CEC-500-2007-035/](http://www.energy.ca.gov/2007publications/CEC-500-2007-035/)

<http://www.energy.ca.gov/calendar/events/index.php?com=detail&elD=1&year=2008&month=6>

Traditionally, PIER Renewables Program has focused on RD&D to improve specific technologies for converting renewable energy sources to electricity and transportation fuels. This solicitation for RESCO technical integration and collateral categories targets RE technical integration in the context of community scale energy systems.

## **6. RESCO RD&D Initiative**

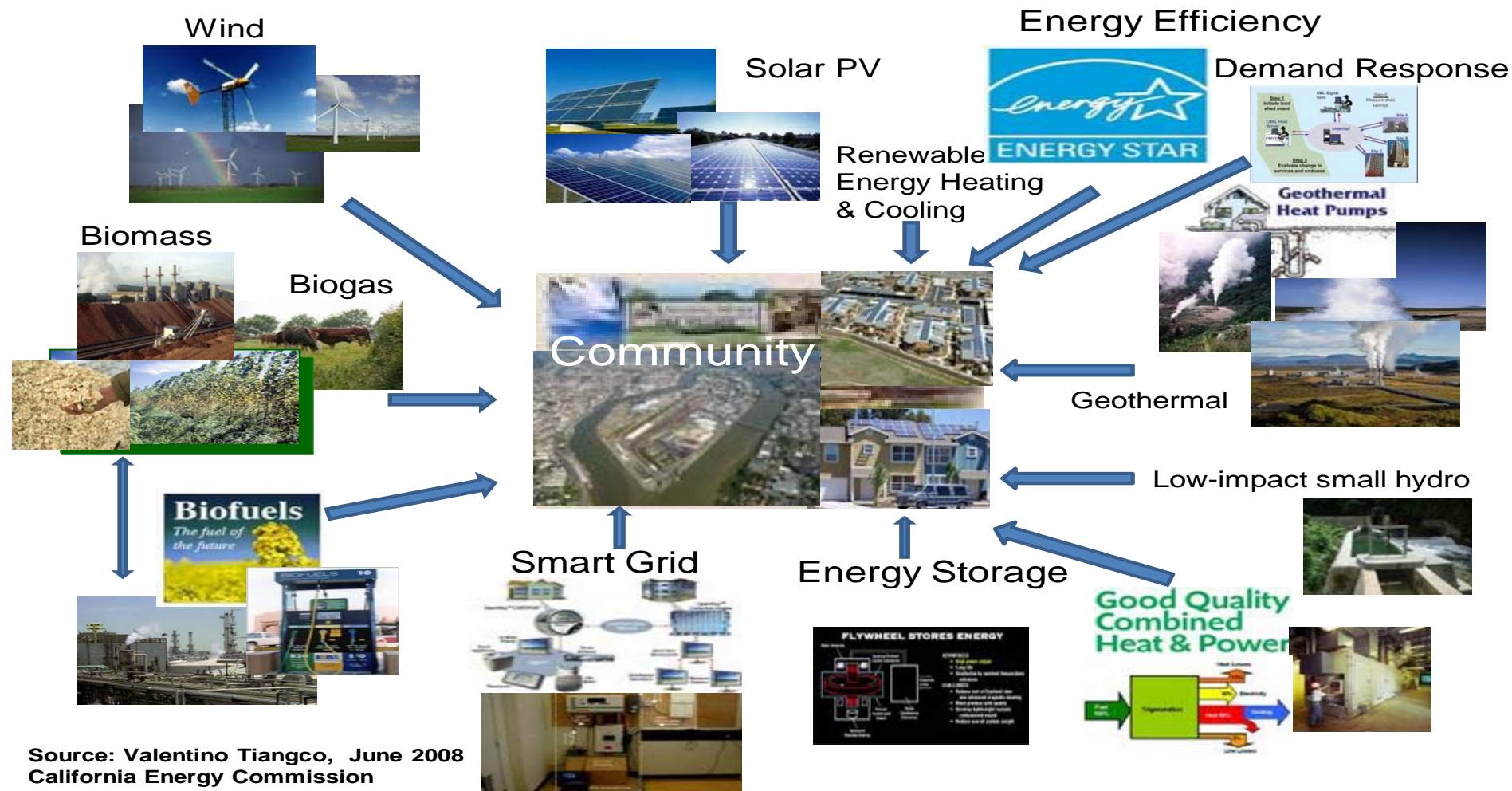
### **RD&D Context:**

RESCO RD&D funding is being administered by the PIER Renewables Program in collaboration with other PIER programs, i.e. Energy Systems Integration, Environmentally-Preferred Advanced Generation, Industrial/Agricultural/Water End-Use Energy Efficiency, Buildings End-Use Energy Efficiency, and Transportation. The emphasis is on economically and environmentally preferred technical integration solutions that enable multiple individual RE conversion technologies to serve a community's energy needs more cost effectively than would be possible using a single technology. To illustrate the range of integration issues that may be encountered on the way to achieving the RESCO vision, Figure 1 juxtaposes the building blocks of a RESCO, wherein a mix of RE conversion technologies can be integrated into sustainable community-based projects. The RD&D of RE integration solutions will capitalize on recent and on-going advancements in energy efficiency and demand response, smart grid integration, combined cooling heating and power (CCHP), energy storage, and co-production of transportation fuels.

The RESCO RD&D strategy is to encourage orderly and capital efficient development of community based renewable resources, using RD&D funds to anticipate and address the technical issues that arise when the problem of achieving net-zero energy imports is addressed at the community level. If the problem is addressed through a portfolio of unrelated and uncoordinated projects, an environmentally and economically sub-optimal solution will be the likely result. On the other hand, if it is addressed holistically, important synergies can be exploited, and momentum and cost savings can be sustained and grown. In other words, RE developers, planners, utilities, and community leaders need a framework in which to collaborate and optimize a community's future energy infrastructure. RD&D can address the risks involved in first-of-a-kind linkages between the pieces of the net-zero puzzle depicted in Figure 1.

Figure 1. RESCO Building Blocks

Building Blocks of Renewable-based Energy Secure Communities (RESCO)



## **Market Context:**

A diverse set of RE technologies are now being deployed in California in an equally diverse array of ways, ranging from utility scale power plants to energy capabilities for communities and buildings that result in no net energy draws from the local electricity and natural gas grids. Many RE technologies can be economically demonstrated and deployed in sizes that fit the demand profile of California inland and coastal communities that range from residential subdivisions to medium size cities and include university campuses, business parks, public agency operations, and other localized groupings of energy users. The technical challenges involved no longer relate primarily to the cost and performance of the individual RE technologies but increasingly to the technologies, tools and strategies that enable their integrated and symbiotic use. Communities wishing to stabilize their future energy costs, create local jobs, reduce environmental impacts, and tap locally available renewable energy resources face the need to develop energy infrastructure that works in harmony with larger fuel and electricity systems while reducing fossil fuel use and climate change impacts. They need to learn by doing. Initial steps may involve sequential planning, piloting, and implementing of solutions and capabilities that: 1) fit the local resource base, and 2) offer promise for future integration and expansion toward the goal of eventually achieving full reliance on RE.

The issues California faces in its efforts to meet the energy needs in a carbon-constrained world are discussed in the 2007 Integrated Energy Policy Report (IEPR). Reversing the growth of greenhouse gas (GHG) emissions as mandated by AB 32 and achieving California's Renewable Portfolio Standard, and other goals (Bioenergy Action Plan, California Solar Initiative, Low Carbon Fuel Standard, etc.) will benefit from RE integration and deployment facilitated by local jurisdictions, public agencies and other local institutions. There are already communities in California committed to become RESCOs. However, there are as yet no proven models and tools for integrating RE into a community's energy infrastructure in a technically and economically optimum way. New technologies and sustainable technology solutions will be required to enable integration of emerging, mature, and economically available RE supply systems.

The following list of benefits of RESCOs was created based on inputs received at three RESCO introductory public workshops and three internal Energy Commission focus group meetings. They are provided here in order to indicate the numerous and diverse benefits of a community's choices regarding energy supply and use:

### **Environmental Benefits**

- improved air and water quality
- maximized use of waste materials for energy production
- attainment of streamlined, consolidated and non-tedious permitting process
- reduced consumption of fossil fuels
- reduced net greenhouse gas emissions, stabilized or reduced net carbon dioxide or lowered carbon footprint
- reduced environmental impacts associated with current disposal practices for California's biomass waste materials such reduced catastrophic wildfires and improved forest health and timber stand
- recycling and water conservation
- ecological integrity



### **Economic Benefits**

- reduced electricity costs or reduced or stabilized energy costs
- cost of living in the community is optimized for consumer
- capture of socio-economic benefits that cut across California specific issues
- increased price stability through the diversified renewable energy supply portfolio
- affordable renewable energy through advancement and improvements in the economies of scale achieved in community-based customer load
- improved statewide and regional economic benefits through direct and indirect employment or renewable communities are magnet for economic development
- support for local infrastructure investment
- greater economic benefits to local communities, creates local jobs

### **Social Benefits**

- master planned community as an integrated system
- smart growth land use planning and green building design and sustainable design approach for community
- renewable RD&D and deployment occur at a community level; designs, decision and progress require integrated decision-making
- renewable communities integrate workplace with living space
- increased customer choice
- local control of resource decisions and rates
- increased local awareness and involvement in clean energy
- communities are strengthened through formation of networks and operational/strategic groupings and transferrable skills
- template for bringing positive change
- cultural and historical vitality
- utility role expansion – power generation and management
- strategic community partnerships drive business participation
- brings together land, permitting, and political strength
- open doors to most landowners wishing to explore renewable energy generation
- communities are appropriate mechanism through which renewable support strategies could be directed
- develop energy infrastructure that works in harmony with larger electricity and fuel systems
- allows coherent and transparent strategy for market penetration of renewables in communities
- development of standards and certifications
- help defer transmission and distribution upgrades
- opportunities to influence and implement effective energy efficiency and demand response programs within community

### **Desirable RD&D Goals of RESCO RD&D Initiative:**

The desirable RD&D goals for RESCO are:

- Support California's 2007 IEPR and climate leadership in reducing greenhouse gases (GHG) and other policy goals (e.g., RPS, CSI, and Bioenergy Action plan, etc)

- Support the general goal of PIER Electricity and PIER Natural Gas Programs to develop and help bring to market, energy technologies that provide increased environmental benefits, greater system reliability, and lower system costs
- Provide RD&D support to communities committed to a clean energy future and accrue public benefits
- Support local government efforts to address climate and energy in their master plan
- Bring full menu of mature, viable, distributed RE technologies, products and services and related California RE resources into play by accelerating their commercialization and use in and by California communities in conjunction with complementary energy technologies and integrated solutions that include:
  - energy efficiency and demand response,
  - smart grid technology,
  - energy storage,
  - combined cooling, heating and power, and
  - co-production of value-added products such as bio-fuels
 thus, making California's electricity and transportation fuels more diverse, safe, cleaner, and affordable.
- Reduce congestion at transmission gateways
- Stabilize energy costs for families and local businesses
- Create local jobs and keep energy purchase dollars and related tax revenues inside the community
- Protect the environment and tap economically exploitable local energy resources
- Improve quality of life in communities
- Consolidated and streamlined permits

## 7. Eligible Projects

Eligible projects must help achieve accelerated adoption, implementation, and sustainable growth of RE systems in California. In order for RESCO technical integration and collateral category project results to be implemented as rapidly as possible, it is essential to address integration issues at the interfaces between the numerous complementary options as shown in Figure 1. In this early stage of RESCO RD&D, it is also necessary to address some collateral RD&D needs. Deployment of RE in California will rely increasingly on market driven industrial RD&D for improvements in performance and cost reductions and increased attention to the cost effective deployment of already mature RE technologies and products in community-based applications.

Eligible projects are divided into two categories: RESCO Technical Integration Projects and RESCO Collateral Projects.

### A. RESCO Technical Integration Projects

Projects in any of the three stages as shown below will be eligible for funding:

**1. Exploratory Stage:** Projects offered by community organizations and their teams must consider the full range of RE solutions consistent with locally available RE resources. As noted in the above introduction, the premise of this solicitation is that typically it will be necessary for a community to exploit multiple RE resource/conversion technology combinations to achieve cost-optimum primary reliance on RE. Further, it will likely also be necessary to plan for some or all of the non-supply integration solutions shown in Figure 1 of the Application Manual. Finally, organizations and teams must show evidence of having the commitment and capacity to follow through on exploratory stage results, i.e. exploratory

stage results should include selection and definition of appropriate pilot and implementation projects.

**2. Pilot Stage:** Projects must be offered by community organizations committed to specific RESCO development plans and must involve hardware development and demonstration employing three or more mature and viable RE resource/conversion technologies (as shown in Figure 1 of the Application Manual) and addressing two or more of the eligible technical integration solutions categories described in Attachment A.

**3. Implementation Stage:** Projects must be offered by community organizations already implementing specific and detailed RESCO development plans and must involve hardware development and demonstration employing three or more mature and viable RE resource/conversion technology options (as shown in Figure 1 of the Application Manual) and three or more integration solution categories described in Attachment A. In addition, implementation projects should address energy system design, scale-up and operational and grid integration issues. A discussion of eligible RESCO technical integration solutions is provided in Attachment A.

## **B. RESCO Collateral Category Projects**

The Energy Commission has allocated funding for RD&D projects addressing the following collateral categories, because work in these categories relates directly to the RESCO vision by developing solutions and direction useful to RESCOs. These following projects will be funded from PIER Electricity and Natural Gas funds as indicated below and will be scored separately from the RESCO Technical Integration projects:

1. **Integration and implementation of smart grid concepts in the RESCO context.** (See Attachment B1 for more guidance regarding the desirable scope and funding for this collateral project.)
2. **Dairy bio-gas or bio-power technology characterization, assessment and validation** (See Attachment B2 for more guidance regarding the desirable scope and funding for this collateral project.)
3. **Demonstration of low cost, low emission technologies for conversion of biogas** (See Attachment B3 for more guidance regarding the desirable scope and funding for this collateral project.)

**Each proposal for a collateral category must be a separate project and must be submitted as a completely separate application.**

Feasibility studies and bench-scale projects will not be funded under this solicitation. Entities or individuals who wish to pursue funding for feasibility studies and bench scale projects should consider applying to the Commission's Energy Innovation Small Grant Program. Information on this program is available through the Energy Commission's website <http://www.energy.ca.gov/contracts/index.html>.

## **8. Funding Information**

A total of up to **\$9,100,000** is available for RESCO project funding through this solicitation for FY 2008. Funds are available from PIER Electricity (\$5,850,000) and Natural Gas Programs (\$3,250,000) accounts.

The maximum levels of funding for RESCO Technical Integration projects are:

1. Exploratory: **\$200,000**
2. Pilot: **\$1,000,000**
3. Implementation: **\$2,000,000**

The maximum levels of funding for RESCO Collateral projects are:

1. RE Integration, piloting and implementation of smart grid concepts: **\$1,000,000** (PIER Natural Gas funding)
2. Dairy bio-gas or bio-power technology characterization, assessment and validation: **\$1,000,000** (PIER Natural Gas funding)
3. Demonstration of low cost, low emission technologies for conversion of biogas, e.g. homogenous charge compression ignition engines; **\$300,000** (PIER Electricity funding)

This solicitation requires match funding except for Collateral Category 2. For exploratory stage projects, minimum match funding is 25% of the total project cost (cash and in-kind). For pilot, implementation, and collateral projects, minimum match funding is 50% of the total project cost (cash and in-kind match).

The Energy Commission will evaluate and score the level of requested and match share funding in accordance with the Scoring Criteria in Attachments C1 and C2.

## **9. Eligible Applicants**

This is a competitive solicitation for RESCO Technical Integration projects or for RESCO Collateral Category projects.

### **A. RESCO Technical Integration Projects:**

The Energy Commission is seeking California based organizations as prime Applicants for RESCO Technical Integration projects. Eligible organizations must be empowered to act on behalf of a specific community in the matters of RESCO planning and implementation. The following list identifies eligible organizations and their related RESCO community context. Prime Applicants must identify the specific community whose interests they will be representing in executing a RESCO Technical Integration project.

- California cities and counties targeting net-zero communities and buildings.
- Chartered California institutions of higher education aiming to shift a campus energy supply mix toward RE.
- Likewise, California school districts aiming to shift district-wide on-campus energy supply toward RE.
- California public agencies engaged in shifting the energy supply mix for specific community-scale operations (e.g., prisons and/or water treatment and pumping operations) toward RE.
- California utilities engaged in facilitating RE deployment in (or for) a particular community area they are currently serving, e.g. RE deployment dedicated to supply specific, identifiable communities and sub-divisions.
- California jurisdictions jointly or individually exploring or moving to implement community choice aggregation in order to achieve locally determined clean energy supply and climate mitigation targets.

- California chartered industry or agriculture associations engaged in development and aggregation of RE supply by local industry members, e.g. bio-methane collection and distribution grids organized by dairies and/or food processors that are integrated in energy systems that include other complementary RE sources.
- California-based Native American governments exploring or implementing a RESCO vision.
- Corporate entities or industry associations exploring or implementing a RESCO vision and empowered to represent the energy users in a proposed or already established business park or industrial zone.

For RE Technical Integration Projects, Applicant teams should have the community-based experience and technology, market, and socio-economic skills to create broadly acceptable and economically and technically sound solutions. In particular, the Energy Commission is interested in supporting inter-disciplinary and community empowered teams that can cut across internal community boundaries and RE technology borders to exploit synergies and solve problems.

### **B. RESCO Collateral Projects:**

The Energy Commission is seeking Prime Applicants for RESCO collateral projects that are either qualified by experience and skills to execute the specific scope of work or are offering to share the cost of a Collateral Project and sub-contract with technology developers, consultants, and other qualified organizations to execute the scope of work. Specifically, organizations eligible to serve as Prime Applicants for RESCO Technical Integration Projects are also eligible to serve as Prime Applicants for RESCO Collateral Projects.

### **All RESCO Projects:**

California business entities as well as non-California business entities conducting intrastate business in California are required to register and be in good standing with the California Secretary of State to enter into an agreement with the Energy Commission. If not currently registered with the California Secretary of State, Applicants are encouraged to contact the Secretary of State's Office as soon as possible to avoid potential delays in beginning the proposed project if your application is successful. For more information, contact the Secretary of State's Office via their website at [www.sos.ca.gov](http://www.sos.ca.gov).

Prime Applicants may submit multiple proposals. However, each proposal must be for distinct, separate projects and must be submitted separately adhering to all requirements contained in this solicitation.

### **10. Payment of Prevailing Wage**

Some projects under this solicitation might be considered public works pursuant to the California Labor Code. If the project is a public work, prevailing wage is required. The California Department of Industrial Relations (DIR) has jurisdiction to decide whether a particular project is or is not a public work. If your project involves construction, alteration, demolition, installation, repair or maintenance work, it probably would be considered by DIR to be a public work. A few of the activities that would probably lead DIR to find that the project involves public works include: cement work; site preparation such as grading; surveying; electrical work such as wiring; and carpentry work. Certain workers are entitled to prevailing wage, such as operating

engineers, surveyors, carpenters, laborers, etc. However, other trades are not entitled to prevailing wage, such as engineers and project superintendents.

Applicants are encouraged to determine if the proposed project involves public works as soon as possible. In order to determine if the proposed project involves public works, you will need to contact DIR. If the Applicant is unsure whether the proposed project involves public works and has not received a determination from DIR that the project is not a public work, the proposed budget must provide for the payment of prevailing wages. Please indicate whether the proposed budget includes prevailing wage.

If the proposed project is a public work, DIR maintains a list of covered trades and the applicable prevailing wage. The grant agreement will include the requirements for a public works project, such as paying prevailing wage, keeping payroll records, complying with working hour requirements, and apprenticeship obligations. See the sample terms and conditions, the Special Condition regarding Prevailing Wage, and the accompanying forms for more information.

For detailed information about prevailing wage and the process to determine if the proposed project is a public work, see Exhibit 4.

#### **11. California Environmental Quality Act (CEQA)**

Some of the projects selected for funding may meet the definition of a “project” for purposes of CEQA (see Public Resources Code section 21000 et seq.). If this occurs, the Energy Commission’s Legal Staff will review the projects to determine whether an exemption applies that would prevent further actions under CEQA. If no exemption applies, certain CEQA requirements (e.g., preparation of a negative declaration or environmental impact report) will have to be met prior to the Energy Commission approving the grant. The Applicant will have to pay the cost for these activities. Please refer to Title 20, California Code of Regulations, Chapter 6, Article 1, including section 2308.

#### **12. Selection of Projects and Award Process**

The following process will be utilized to recommend project(s) for funding:

1. Based on the proposals submitted, a scoring committee will score the projects using the scoring criteria described in Attachments C1 and C2.
2. The scoring committee may conduct optional interviews for clarification purposes.
3. A minimum score of 70 (out of 100) is required to be eligible for funding.
4. Projects receiving a score of 70 or more will be ranked according to their overall score.
5. Project(s) will be recommended for funding starting with the highest ranked project until all funds are exhausted.
6. The Energy Commission reserves the right to negotiate with the Applicant(s) to modify the project scope, the level of funding, or both.
7. If the Energy Commission is unable to successfully negotiate and execute a funding agreement with an Applicant, the Energy Commission, at its sole

discretion, reserves the right to cancel the pending award and fund the next highest ranked eligible project proposal received under this solicitation.

8. A Notice of Proposed Awards will be released upon completion of the scoring process.
9. Intended Grant Recipient(s) will be required to work with Energy Commission staff to finalize a potential agreement based closely on the application documents. It is expected that the information in the project proposal will be complete, in the specified format, and will not require substantial revision in order to comply with this requirement. Public agencies and non-profit organizations must also provide an authorizing resolution approved by their governing authority. Funding will be awarded only upon satisfactory completion of these documents.
10. Upon receiving the required documents, a Grant Agreement, which includes applicable Terms and Conditions\*, will be written and sent to the Recipient(s) for review, approval and signature.
11. Concurrently the complete agreement will be taken to the Energy Commission Business Meeting for approval
12. Once all parties have approved the agreement it will be executed. Recipient(s) are approved to begin the project only after full execution of the Grant Agreement.

\* **The *PIER Grant Terms and Conditions* can be found at <http://www.energy.ca.gov/contracts/index.html> as part of this solicitation package. Applicants should read carefully the *PIER Grant Terms and Conditions*, especially the *royalty provisions section*. Please note, however, the Energy Commission reserves the right to modify the terms and conditions prior to executing grant agreements.**

### 13. Schedule of Proposal and Award Process

Release of Program Opportunity Notice & Application Manual	December 8, 2008
First Pre-Proposal Workshop Hearing Room A, 10 AM California Energy Commission 1516 Ninth St, Sacramento, CA 95814	December 22 , 2008 See December 22 Public Participation below
Second Pre-Proposal Workshop Hearing Room A, 10 AM California Energy Commission 1516 Ninth St, Sacramento, CA 95814	December 23 , 2008 See December 23, 2008 Public Participation below
Deadline to Submit Questions	December 29, 2008
Post Questions and Answers to Website	January 9 , 2009
<b>Deadline to Submit Proposals</b>	<b>January 30, 2009</b> 4:00 p.m. Pacific Daylight Time
Interview Applicants (if necessary)	February 2009

Post Notice of Proposed Award	<i>Estimated</i> Last Week of Feb or 1 <sup>st</sup> Week of March 2009
Approval of Awards at Energy Commission Business Meeting	<i>Estimated</i> June 2009

#### 14. Proposal Requirements

It is requested that proposals contain the following elements. ***Failure to include these elements WILL result in your proposal receiving a lower overall score and MAY result in your proposal being rejected and not eligible for funding.***

1. Contact information, including: contact person's name, title, entity legal name, physical address, telephone number, fax number and email address. Authorized signature of the Prime Applicant must be included in the contact information page certifying that all information in the proposal is correct and complete to the best of his/her knowledge. Public agencies and non-profit organizations must also provide an authorizing resolution approved by their governing authority.
2. A clear statement of which RESCO categories and funding level(s), as defined under Sections 7 and 8 above for "Eligible Projects" and "Funding Request", is (are) addressed by your proposal.
3. One page summary of the project (one page maximum), which includes the title; brief project description; quantitative and measurable goals to be achieved by the end of the project; the project duration and date of completion; amount of PIER funding requested; and total project budget.
4. **Applicant must provide detailed narrative and discussion of how the proposed project addresses each of the scoring criteria described in Attachments C1 and C2.** Applicant should be sure to address comprehensively and in appropriate detail each bullet in every criterion as specified in Attachments C1 and C2 so that reviewers will be able to properly evaluate proposals against each of the scoring criteria. Scoring criteria include: Technical Merits (30 points), Technical Approach (25 points), Technical Qualifications, Management and Project Team (20 points), and Market Connectedness (25 points).
5. A Work Statement with a task-by-task description of the project including a process flow diagram. **Use of the template given in Attachment E is mandatory.** A Work Statement should include:
  - Problem Statement
  - Overall Project Goals
  - Technical and Economic Objectives
  - Technical Tasks
  - Task for Technology Transfer Activities, and
  - Task for Commercialization Readiness Plan
 For each task include:
  - (a) A descriptive task name
  - (b) A one-sentence goal of the task
  - (c) A list of the activities to be performed (specifically what you will do)
  - (d) Results or products produced
  - (e) The estimated completion date of the task.



See Attachment E for detailed instruction for writing the work statement.

6. A one page Gantt chart showing the duration and sequencing of tasks, starting with the date that funding is awarded. Assume a start date of August 1, 2009.
7. Project budget information, including the source(s) of match funding, a justification for the share of match funding, and the reasons why this project is not likely to be funded by competitive or regulated markets. Include the budget forms in Attachment D: a total project budget broken down by category is on the third tab, PIER funding for each task detailed by category on the fifth tab, match funding for each task detailed by category on the sixth tab, instructions and sheets that self complete are included in the additional tabs. This budget form is an Excel spreadsheet. It is posted on the Energy Commission website at <http://www.energy.ca.gov/contracts/index.html> as part of this solicitation package. **Use of budget template in Attachment D is mandatory.**
8. Short biographies for the Principal Investigator or the Prime Applicant's project manager, as well as for -key research partners (individuals in your organization or subcontractors), emphasizing experience related to activities to be performed in the project.
9. Indicate whether the project involves public works and whether the budget includes prevailing wages.
10. Any other significant factors to enhance the value of the proposal, including highlights of the previous work and innovative features related to the proposed project.
11. California-Based Entity (CBE) Preference Points Questionnaire (optional): Applicants meeting the criteria of a California-Based Entity (CBE) may have preference points added to their final technical score, subject to certain restrictions. Please see Attachment F for more information. Eligible applicants must request and demonstrate eligibility by filling out and submitting as part of the proposal package the questionnaire contained in Attachment F. Otherwise eligible applicants who do NOT submit the Attachment F questionnaire shall NOT be eligible for the CBE Preference Points.

## **15. Proposal Guidelines**

Proposals must adhere to the following proposal guidelines. ***Failure to adhere to these guidelines MAY result in your proposal being rejected and not eligible for funding.***

1. Please provide one (1) original and ten (10) copies of the proposal and a CD containing all the documents. The documents do not need to be bound; binder clips are acceptable. The original must be signed by an authorized representative of your organization.
2. Limit proposals to a maximum of 40 pages total. Use appendix for additional information.
3. Use a standard 11-point font and 1-inch or larger page margins. Insert one blank line between paragraphs. Number the pages.
4. Project duration cannot be more than three years.

5. All project expenditures (match share and reimbursable) must be expended within the approved term of the funding agreement.
6. Maximum funding requests per project cannot exceed the amount stated in Section 8 for different levels of funding.
7. Match funding is required except for Collateral Category 2 and the share of match funding will be considered in scoring the proposal (see the scoring criteria in Attachments C1 and C2).
8. The budget should allow for the expenses of a Kick-off Meeting, at least two Critical Project Review meetings, and a Final Meeting. It is anticipated that meetings will be conducted at the Energy Commission located in Sacramento, CA.
9. The budgets should allow for the preparation and submission of monthly progress reports (2-4 pages each) during the approved term of the agreement, and a final report that follows Energy Commission guidelines which can be found at <http://www.energy.ca.gov/contracts/pier/contractors/index.html>.
10. The purchase of equipment (items with a unit cost greater than \$5,000 and a useful life greater than one year) with PIER funds is discouraged due to disposition requirements associated with the equipment. There are no disposition requirements for equipment purchased with match share funding.
11. The budget must reflect estimates for **actual** costs to be incurred during the approved term of the project. The Energy Commission can only approve and reimburse expenditures for actual costs that are properly documented in accordance with the PIER Grant Terms and Conditions.
12. The budget must **NOT** include any profit from the proposed project, either as a reimbursed item or as match share. In accordance with the PIER Grant Terms and Conditions, **NO PROFIT IS ALLOWED UNDER GRANT AGREEMENTS**. Please review the PIER Grant Terms and Conditions for additional restrictions and requirements.

#### **16. Confidential Information**

No confidential information will be accepted during the proposal and selection phase of this solicitation. If any confidential information is submitted, the entire proposal will be rejected and will not be eligible for funding. Proposals containing confidential information will be returned to the Applicant.

While discouraged, Applicants may **propose** to deliver confidential products during the course of the project if funded. If necessary, instructions on submitting confidential products will be provided by the Energy Commission prior to executing the Grant Agreement.

#### **17. Pre-Proposal Workshops**

Two Pre-Proposal Workshops will be held at the dates, time, and place listed below. Participation by prospective Applicants is optional. Please call (916) 651-9312 or refer to the

Energy Commission's website at <http://www.energy.ca.gov/contracts/index.html> to confirm the date and time.

<b>Dates: December 22 and 23, 2008</b>	
<b>Time:</b>	10:00 a.m. to 12:00 Noon
<b>Location:</b>	<b>December 22, 2008</b> California Energy Commission Hearing Room A, First Floor 1516 Ninth Street Sacramento, California 95814 In-person and via WebEx  <b>December 23, 2008</b> California Energy Commission Hearing Room A, First Floor 1516 Ninth Street Sacramento, California 95814 In-person and via WebEx  <b>See Instructions for Public Participation below.</b>
<b>Telephone:</b>	(916) 651-9312

### **December 22, 2008 Public Participation**

Topic: RESCO Solicitation Pre-Proposal Workshop 1

Date: Monday, December 22, 2008

Time: 10:00 am, Pacific Standard Time

#### **COMPUTER LOGON WITH A DIRECT PHONE NUMBER:**

- \* Please go to <https://energy.webex.com> and enter the unique meeting number **920 712 450**
- \* When prompted, enter your information and the following meeting password **meeting@10**
- \* After you login, a prompt will appear on-screen for you to provide your phone number. In the Number box, type your area code and phone number and click OK to receive a call back on your phone for the audio of the meeting. International callers can use the "Country/Region" button to help make their connection.

#### **COMPUTER LOGON FOR CALLERS WITH AN EXTENSION PHONE NUMBER, ETC.:**

- \* Please go to <https://energy.webex.com> and enter the unique meeting number **920 712 450**
- \* When prompted, enter your information and the following meeting password **meeting@10**
- \* After you login, a prompt will ask for your phone number. CLICK CANCEL.
- \* Instead call 1-866-469-3239 (toll-free in the U.S. and Canada). When prompted, enter the meeting number above and your unique Attendee ID number which is listed in the top left area of your screen after you login. International callers can dial in using the "Show all global call-in numbers" link (also in the top left area).

#### **TELEPHONE ONLY (NO COMPUTER ACCESS):**

- \* Call 1-866-469-3239 (toll-free in the U.S. and Canada) and when prompted enter the unique meeting number above. International callers can select their number from <https://energy.webex.com/energy/globalcallin.php>

If you have difficulty joining the meeting, please call the WebEx Technical Support number at 1-866-229-3239. To see if your computer is compatible, visit <http://support.webex.com/support/system-requirements.html>. Please be aware that the meeting's WebEx audio and on-screen activity may be recorded.

## **December 23, 2008 Public Participation**

Topic: RESCO Solicitation Pre-Proposal Workshop 2

Date: Tuesday, December 23, 2008

Time: 10:00 am, Pacific Standard Time

### **COMPUTER LOGON WITH A DIRECT PHONE NUMBER:**

- \* Please go to <https://energy.webex.com> and enter the unique meeting number **928 317 515**
- \* When prompted, enter your information and the following meeting password **meeting@10**
- \* After you login, a prompt will appear on-screen for you to provide your phone number. In the Number box, type your area code and phone number and click OK to receive a call back on your phone for the audio of the meeting. International callers can use the "Country/Region" button to help make their connection.

### **COMPUTER LOGON FOR CALLERS WITH AN EXTENSION PHONE NUMBER, ETC.:**

- \* Please go to <https://energy.webex.com> and enter the unique meeting number **928 317 515**
- \* When prompted, enter your information and the following meeting password **meeting@10**
- \* After you login, a prompt will ask for your phone number. **CLICK CANCEL.**
- \* Instead call 1-866-469-3239 (toll-free in the U.S. and Canada). When prompted, enter the meeting number above and your unique Attendee ID number which is listed in the top left area of your screen after you login. International callers can dial in using the "Show all global call-in numbers" link (also in the top left area).

### **TELEPHONE ONLY (NO COMPUTER ACCESS):**

- \* Call 1-866-469-3239 (toll-free in the U.S. and Canada) and when prompted enter the unique meeting number above. International callers can select their number from <https://energy.webex.com/energy/globalcallin.php>

If you have difficulty joining the meeting, please call the WebEx Technical Support number at 1-866-229-3239. To see if your computer is compatible, visit <http://support.webex.com/support/system-requirements.html>. Please be aware that the meeting's WebEx audio and on-screen activity may be recorded.

## **18. Submission Requirements**

Proposals must be *received* by the Energy Commission's Grants and Loans Office by **4:00 p.m. (PST) on January 30, 2009**. Proposals must be mailed or delivered to:

California Energy Commission  
Grants and Loans Office  
Attn: PIER Renewables Program  
Renewable-Based Energy Secure Communities  
1516 Ninth Street, MS-1  
Sacramento, CA 95814

Postmark dates of mailing, electronic mail (E-mail), and facsimile (Fax) transmissions are not acceptable in whole or in part under any circumstances. The Energy Commission will reject all proposals not received by the Energy Commission's Grants and Loans Office by the stated due date and time.

#### **19. Grounds for Rejection**

Proposals **WILL** be rejected and not considered for funding if:

- The proposal is not received by the Energy Commission's Grants and Loans Office by the stated due date and time.
- The proposal contains any confidential information.
- Does not use the mandatory Work Statement and Budget templates.
- The proposal is not for a separate, distinct project from other proposals submitted by the same Applicant.

Proposals **MAY** be rejected and not considered for funding if:

- The proposal does not address each element listed under "Proposal Requirements."
- The proposal does not adhere to the guidelines listed under "Proposal Guidelines."

#### **20. Amendment or Cancellation of this Solicitation**

The Energy Commission reserves the right to do any of the following:

- Cancel this solicitation;
- Amend or revise this solicitation as needed; or
- Reject any or all proposals received in response to this solicitation.

#### **21. Questions**

Additional questions about this solicitation must be submitted by 4:00 p.m. on December 29, 2008, and may be submitted by email or letter. The questions and answers will be posted on the Energy Commission's website by January 6, 2009. Questions may be directed to:

Valentino Tiangco  
Energy Generation Research Office  
California Energy Commission  
1516 Ninth Street, MS-43  
Sacramento, CA 95814  
Email: [vtiangco@energy.state.ca.us](mailto:vtiangco@energy.state.ca.us)

For those parties without internet access, copies of the questions and answers can be obtained by contacting:

Angela Layton  
Administrative Assistant  
Energy Generation Research Office  
California Energy Commission  
1516 Ninth Street, MS-43  
Sacramento, CA 95814  
Telephone: (916) 651-9312  
Email: [alayton@energy.state.ca.us](mailto:alayton@energy.state.ca.us)

**22. Attachments**

- A. RESCO Technical Integration - List of Potential Projects
- B. RESCO Collateral Projects
  - B1. RE Integration, Piloting and Implementation of Smart Grid Concepts
  - B2. Dairy bio-gas or bio-power technology characterization, assessment and validation
  - B3. Demonstration of low emission technologies for conversion of biogas
- C. Scoring Criteria
  - C1. Scoring Criteria for RESCO Technical Integration
  - C2. Scoring Criteria for RESCO Collateral Projects
- D. Budget Forms
- E. Sample Work Statement Format and Instructions
- F. California-Based Entity (CBE) Preference Points Questionnaire (optional)

**23. Exhibits**

- 1. PIER Terms and Conditions with Payment Request Form
- 2. Prevailing Wage Special Condition Template
- 3. Prevailing Wage Compliance Certificate
- 4. Prevailing Wage Compliance Qs & A